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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/933,928	PELIOTIS ET AL.	
	Examiner	Art Unit	
	Farzana E. Hossain	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 January 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-8,10-13,15,17,19-23,25,26,29-36,38,42-47,49,50 and 52-57 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3-8,10-13,15,17,19-23,25,26,29-36,38,42-47,49,50 and 52-57 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 August 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/11/2008 has been entered.

Response to Amendment

2. This action is in response to communications filed 01/11/2008. Claims 1, 3-8, 10-13, 15, 17, 19-23, 25, 26, 29-36, 38, 42-47, 49, 50 and 52-57 are amended. Claims 2, 9, 14, 8, 16, 18, 24, 27, 28, 37, 39-41, 48, 51, 58-65 and 69-71 are cancelled.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 15, 17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Regarding Claims 1, 15, 17 and 19, the applicant argues that Abecassis fails to disclose a system that handles a video stream consisting of continuous series of video segments and to handle the continuous series of video segments, decodes markers associated with each individual video segment, the system stores the identified video segments in a video storage and decodes tags associated with each video segment (Page 22). The applicant argues that Abecassis discloses a program content map and the present invention does not have a pre-made content map. The applicant argues that Abecassis teaches away from the present invention because Abecassis does not teach receiving a video stream consisting of continuous series of video segments.

In response to the argument, Abecassis discloses a video stream comprising a video program, therefore, a continuous series of video segments (Column 8, lines 53-63). The program displayed to a user has a continuous seamless presentation displayed via received segments for a continuous program selected via a comparison of tags with user preference information (Figure 1, Column 7, lines 8-26) and markers. Abecassis further discloses storing the program separated from tags and markers (Figure 5, 621, 633, 622, 612). Furthermore, Kwoh discloses receiving a video stream, the video stream comprising a continuous series of video segments (Figures 23 and 24). Kwoh discloses decoding the tags and markers from the regular video stream (Figure 25, 706, 708). See new rejection.

4. Applicant's arguments with respect to claim 42 have been considered but are moot in view of the new ground(s) of rejection.

5. All other dependent claims depend on the independent claims and no argument was made to any specific dependent claim.

Specification

6. The amendment filed 1/11/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Furthermore, markers may be inserted *automatically* by detecting changes in music or changes of scenery within the video stream.

There is no previous disclosure of automatically inserting the markers automatically. The previous objection made by the Office was to include the following:

The markers are inserted into said video stream to indicate the division between video segments by changes in music within said video stream.

The markers are inserted into said video stream to indicate the division between video segments by changes in scenery within said video stream.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 3, 5-8, 10-13, 15, 17, 19-23, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis (US 6,011,895) in view of Kwoh et al (US 6,226,793 and hereafter referred to as "Kwoh").

Regarding Claims 1, 15, 17 and 19, Abecassis discloses a method of selecting preferred video segments from a plurality of video segments within a video stream, a system of selecting preferred video segments from a continuous series of video segments within a video stream (Column 7, lines 16-26, Figure 1, Figure 3, Figure 5), the method and system comprising: a set top box (STB) that receives a video stream, the video stream comprising a continuous series of video segments or sequential series of segments of a program to play to the viewer (Figure 3, Column 8, lines 62-64); the STB separates markers encoded within the video stream, the markers indicating divisions or beginning and ending frames between the plurality of video segments of the video stream (Column 8, lines 39-45); the STB separates tags encoded within the video stream, each video segment having associated tags, the tags provide information relating to the content of an associated video segment (Figures 1A-1C, Column 7, lines 8-15, 28-67, Column 8, lines 1-26, 39-52, Column 6, lines 44-55, Column 5, lines 17-20); a video segment database or a database storing the markers and tags separated from the video stream (Figure 5, 623, 622, 633, Column 5; lines 17-20); a video storage storing the video segments, the video segments identified from the video stream using

the markers (Figure 5, 611, 612, Column 11, liens 15-30, 59-65); a user preference database, the user preference database storing viewer preferences from a viewer (Figure 5, 651, Column 10, lines 57-65, Figure 1, Column 7, lines 8-15); a comparator compares the tags from the database with viewer preferences to select preferred video segments from the video storage and using video preference information of a viewer to select preferred video segments from the video storage by comparing the tags describing the content of each video segment stored in the database with the video preference information of the viewer (Column 10, lines 10-16, Column 5, lines 5-12, Column 7, lines 8-26, Column 8, lines 39-52, Column 14, lines 10-13, Column 15, lines 52-57, Figures 1A-C, Figure) and downloading preferred video segments from the video content from the local storage for viewing by the viewer if the comparison of the tags of each video segment with the video preference information is favorable (Column 11, lines 1-15). Abecassis does not explicitly disclose a decoder decoding the tags and markers.

In analogous art, Kwoh discloses a method of selecting preferred video segments and excluding unwanted video segments from a plurality of video segments within a video stream (Figure 26) comprising: encoding markers within the video stream (Column 13, lines 33-64, Figure 23, 664, 668 Figure 24, 684, 688, 693, 694), the markers having a position in the video stream that indicates a division between the plurality of video segments of the video stream (Figure 23, 664, 668, Figure 24, 684, 688, 693, 694); encoding tags within the video stream that indicate content of each video segment (Column 13, lines 33-64, Figure 21); receiving a video stream, the video

stream comprising a continuous series of video segments (Figures 23 and 24); using video preference information of the viewer to select the preferred video segments and exclude the unwanted video segments by comparing the tags with the video preference information of the viewer (Figure 26). Kwoh discloses that step of encoding tags and markers within the video stream comprise encoding tags and markers manually by a use of computer (Figure 20, 10007). Kwoh discloses a video blanking interval decoder that decodes the tags and makers from the regular video stream (Figure 25, 706, 708). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abecassis to include decoder that decodes the tags and makers from the regular video stream (Figure 25, 706, 708) as taught by Kwoh in order to provide parental control on all broadcasts and transmissions to a STB (Column 1, lines 14-16, 55-57) as disclosed by Kwoh.

Regarding Claim 3, Abecassis and Kwoh disclose all the limitations of Claim 1. Kwoh discloses encoding tags and markers within the video stream manually by a use of computer (Figure 20, 10007).

Regarding Claim 5, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses that the markers within the video stream are encoded with markers video stream based upon detection of changes of scenes (Figure 3A).

Regarding Claim 6, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses using video preference information of the viewer to select preferred video segments within a video stream comprises comparing key words are input by the

viewer with the tags that have been placed within the video stream (Column 7, lines 8-26, Column 8, lines 38-45).

Regarding Claim 7 and 23, Abecassis and Kwoh disclose all the limitations of Claims 1 and 19 respectively. Abecassis discloses that encoding tags within the video steam such as the topic (Column 7, lines 8-26). Kwoh discloses placing the information from an EPG into the video stream relating to the video segment (Column 14, lines 46-67, Column 15, lines 1-21).

Regarding Claim 8, Abecassis and Kwoh disclose all the limitations of Claim 1. Kwoh discloses the tags and markers are encoded in the vertical blanking interval (Column 13, lines 50-55, Column 14, lines 66-67, Column 15, lines 1-9).

Regarding Claim 10, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses that skipping to a next video segment upon receiving an input control signal from a user input device (Column 7, lines 8-26, Column 5, lines 24-36, Column 11, line 35) and proceeding to a selected video segment (Column 7, lines 8-26, Column 5, lines 24-36).

Regarding Claim 11, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses that excluding the video segments that do not have tags that match any preferred content tags in the video preference information of the viewer (Column 10, lines 10-16, Column 5, lines 5-12, Column 7, lines 8-26, Column 8, lines 39-52). Kwoh discloses excluding the video segments that do not have tags that match any preferred content tags in the video preference information of the viewer (Figures 23 and 24).

Regarding Claim 12, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses excluding the video segments that match undesired content tags in the video preference information of the viewer (Column 7, lines 20-23, Column 10, lines 10-16).

Regarding Claim 13, Abecassis and Kwoh disclose all the limitations of Claim 1. Abecassis discloses using video preference information of a viewer to select preferred video segments from the video storage comprising sequentially accessing preferences and tags stored in the database or accessing sequentially tags and markers based on the scenes or segments (Column 11, lines 15-30).

Regarding Claim 20, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis discloses a personal video recorder for filtering the video stream based on a viewer's habits and preferences to provide video segments to be viewed by the viewer (Figure 5, 601, 631, 612, Column 10, lines 33-67, Column 11, lines 1-30).

Regarding Claim 21, Abecassis and Kwoh disclose all the limitations of Claim 19. Kwoh discloses a video blanking interval decoder that separates the tags and makers from the regular video stream (Figure 25, 706, 708).

Regarding Claim 22, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis discloses a comparator sequentially accesses the tags and the markers in the video segment database or sequentially access scenes for tags and markers in the video segment database (Column 11, lines 15-30)

Regarding Claim 36, Abecassis and Kwoh disclose all the limitations of Claim 19. See rejection of claim 3. Kwoh discloses that the plurality of video segments in the

video stream comprise a live broadcast signal that is sent to the STB at a viewer's premises (Column 13, lines 33-64).

Regarding Claim 38, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis discloses a viewer personalized remote control or input device (Figure 5, 655, 656, 657) that transmits the video preference information to the system (Figure 5, 651).

9. Claims 4, 33, 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 1 above, and further in view of Maybury et al (US 6,961,954 and hereafter referred to as "Maybury").

Regarding Claims 4, 33, and 66, Abecassis and Kwoh disclose all the limitations of Claims 1, 19, and 19 respectively. Abecassis and Kwoh are silent on encoding tags and markers comprise encoding tags and markers automatically by use of voice recognition techniques. Maybury discloses encoding markers within a video stream (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) which indicates a division between a plurality of segments (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) by using voice recognition (Column 10, lines 33-40) and encoding tags comprising keywords (Column 16, lines 48-56) by using voice recognition (Column 18, lines 38-67). Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include encoding markers (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) by using voice recognition (Column 10, lines 33-40) and encoding tags (Column 16, lines 48-56) by using voice recognition (Column 18, lines 38-67) as taught

by Maybury in order to provide a more efficient tool of allowing a user to catalog and search multimedia information which is more accurate (Column 1, lines 54-67) as disclosed by Maybury.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 19 above, and further in view of Eyer (US 6,483,547).

Regarding Claim 25, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis and Kwoh are silent on the tags and markers being analog. Eyer discloses that the tags and markers are encoded as analog data in the video stream to generate the encoded video stream (Figure 1, 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode tags and markers as analog data to generate the encoded video stream (Figure 1, 16) as taught by Eyer in order to use identification data to access information about the program (Column 2, lines 29-41) as disclosed by Eyer.

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 19 above, and further in view of Beckman et al (US 6,675,388 and hereafter referred to as "Beckman").

Regarding Claim 26, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis and Kwoh are silent on the tags and markers being digital. Beckman discloses that the tags and markers are encoded as digital data or that digital data is

inserted into the VBI in the video stream to generate the encoded video stream (Column 4, lines 33-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode tags and markers as digital data to generate the encoded video stream (Column 4, lines 33-35) as taught by Beckman in order to coordinate distribution of digital and analog broadcasts to receivers (Column 2, lines 1-11) as disclosed by Beckman.

12. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 19 above, and further in view of Elenbaas et al (US 2005/0028194 and hereafter referred to as "Elenbaas").

Regarding Claim 29, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis and Kwoh are silent on encoding tags and markers detecting changes in flesh tone. Elenbaas discloses detecting changes in flesh tone for image analyze of important scenes or story segments (Page 4, paragraph 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode tags and markers by detecting changes in flesh tone (Page 4, paragraph 0028) as taught by Elenbaas in order to improve search and retrieve techniques for interest in television program (Page 1, paragraph 0008) as disclosed by Elenbaas.

13. Claims 30, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 19 above, and further in view of Ahmad et al (US 6,880,171 and hereafter referred to as "Ahmad").

Regarding Claims 30 and 34, Abecassis and Kwoh disclose all the limitations of Claim 19. Kwoh discloses insertion of markers for diversion between video segments (Figures 23 and 24). Abecassis and Kwoh are silent on encoding tags and markers detecting changes in audio including music within the video stream. Ahmad discloses detecting changes in audio levels including music (Column 25, lines 17-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode markers by detecting changes in audio levels including music (Column 5, lines 17-25) as taught by Ahmad in order to categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

Regarding Claim 32, Abecassis and Kwoh disclose all the limitations of Claim 19. Kwoh discloses insertion of markers for diversion between video segments (Figures 23 and 24). Abecassis and Kwoh are silent on markers inserted to indicate the division between the video segments and tags inserted to indicate content by automatic detection of changes in color within the video stream. Ahmad discloses that markers inserted to indicate the division between the video segments and tags inserted to indicate content by automatic detection of changes in color within the video stream (Column 16, lines 37-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to insert

markers to indicate the division between the video segments to indicate content by automatic detection of changes in color within the video stream (Column 16, lines 37-53) as taught by Ahmad in order to categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

14. Claims 31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claim 19 above, and further in view of Gove (5,099,322).

Regarding Claim 31, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis and Kwoh are silent on the video stream being encoded based on detection of changes in light levels. Gove discloses that each video segment is defined by automatic detection of changes in light level within the video stream (Column 3, lines 1-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to insert markers to indicate the division between the video segments and insert tags to indicate content by automatic detection of changes in light levels within the video stream (Column 3, lines 1-16) as taught by Gove in order to analyze the scene changes in a video signal (Column 1, lines 65-68) as disclosed by Gove.

Regarding Claim 35, Abecassis and Kwoh disclose all the limitations of Claim 19. Abecassis and Kwoh are silent on the video stream being encoded based on detection of scene changes. Gove discloses that each video segment is defined by automatic

detection of changes in scenery (Column 3, lines 13-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to insert markers to indicate the division between the video segments is defined by automatic detection of changes in scenery (Column 3, lines 13-21) as taught by Gove in order to analyze the scene changes in a video signal (Column 1, lines 65-68) as disclosed by Gove.

15. Claims 42, 43, 45, 46, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al (US 2002/0188943 and hereafter referred to as "Freeman) in view of Block (US 7,200,852).

Regarding Claim 42, Freeman discloses a system for generating an encoded primary video stream and an encoded alternate video stream (Page 3, paragraph 0051), comprising a plurality of video sources (Page 3, paragraph 0051, Figure 1, 100, 110, 135); a switcher, the switcher coupled to the plurality of video sources, the switcher outputting a primary video signal and an alternate video signal (Page 3, paragraph 0051, Figure 1, 100, 105, 110, 135); a marker generator the marker generator generating markers that designate divisions between video segments on a primary and alternate video signals via trigger points (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064); a first encoder that receives the regular video signal from the switcher and encodes the markers into the primary video signal to create an encoded primary broadcast video stream (Pages 3-4, paragraphs 0051-0052, 0054); a second encoder that receives the alternate video signal from the switcher and encodes the markers into

the alternate video signal to create an encode alternate video stream (Pages 3-4, paragraphs 0051-0052, 0054). Freeman is silent on encoding primary tags into the primary video signal, the primary tags describing content of the primary video signal and encoding alternate tags into the alternate video signal, the alternate tags describing content of the alternate video signal. Block discloses a system for generating an encoded primary video stream and an encoded alternate video stream (Column 11, lines 44-61), the system comprising: a plurality of video sources (Figure 2, 140, 150); encoding primary tags and markers, defining divisions between segments via frames, into the primary video signal to create an encoded primary broadcast video stream (Column 11, lines 44-61); the primary tags describing content of the primary video signal (Column 5, lines 58-67, Column 9, lines 40-55, Column 6-8, Tables 1-2); encoding alternate tags and the markers, defining divisions between segments via frames, into the alternate video signal to create an encode alternate video stream, the alternate tags describing content of the alternate video signal (Column 5, lines 58-67, Column 9, lines 40-55, Column 6-8, Tables 1-2, Figure 14). Therefore, it would have been obvious to one of ordinary skill in the art to modify Freeman to include encoding primary tags into the primary video signal, the primary tags describing content of the primary video signal and encoding alternate tags into the alternate video signal, the alternate tags describing content of the alternate video signal (Column 11, lines 44-61, Column 5, lines 58-67, Column 9, lines 40-55, Columns 6-8, Tables 1-2) as taught by Block in order to provide an improved method of users to watch programs based on its rating and subject matter so as not to offend people (Column 1, lines 35-50) as disclosed by Block.

Regarding Claim 43, Freeman and Block disclose all the limitations of Claim 42.

Freeman discloses a control that generates control signal to control the switcher (Page 3, paragraph 0051, Figure 1, 135).

Regarding Claim 45, Freeman and Block disclose all the limitations of Claim 43.

Freeman discloses that video stream source comprises a video tape bank (Figure 1, 110).

Regarding Claim 46, Freeman and Block disclose all the limitations of Claim 43.

Kwoh discloses that video stream source comprises a receiver for receiving a remote video from a remote source (Figure 1, 100).

Regarding Claim 49, Freeman and Block disclose all the limitations of Claim 43.

Block discloses alternate video stream comprises alternate selection of video that replaces excluded video segments from the primary video stream (Figure 14).

16. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Block as applied to claims 42 above, and further in view of Rosser (US 6,446,261).

Regarding Claim 44, Freeman and Block disclose all the limitations of Claim 43. Freeman discloses one of the plurality of video sources comprises a camera (Figure 1, 100). Freeman and Block are silent on a stream source comprises studio cameras that generate video streams. In analogous art, Rosser discloses a video on demand system (Figure 1, 14, 26) that uses comparison data to generate a request signal for the alternate video segments or the insertions/advertisements do not fall with the profile

causing a default advertisement to be requested for display (Column 7, lines 46,56, Column 13, lines 33-41). Rosser discloses a video content provider (Figure 1, 14) comprising a video stream source that generates multiple video sources (Figure 1, 14, 12). Rosser discloses that the video provider produces a signal which is sent to a central studio for further processing prior to rebroadcast and that the central studio can insert all video alternate signals for distribution (Column 7, lines 1-20), which reads on the studio containing switcher that receives control signals to generate broadcast video stream and an alternate video stream. It would have been obvious that particular control signals are sent to the central studio from the video provider so that processing occur, which would then include a controller that generates control signals. Rosser discloses that the video stream source comprises studio cameras that generate video streams (Figure 1, 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include video stream source comprises studio cameras that generate video streams (Figure 1, 11) as taught by Rosser in order to seamlessly insert advertising and other indicia seamlessly (Column 1, lines 19-29) as disclosed by Rosser.

17. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Block as applied to claim 43 above, and further in view of Cobbley et al (US 5,614,940 and hereafter referred to as "Cobbley").

Regarding Claim 47, Freeman and Block disclose all the limitations of Claim 43. Block discloses Freeman and Block are silent on a computer generating tag information

and voice recognition software that generates custom tag information. Cobbley discloses that the markers are generated (Column 3, lines 60-67, Column 4, lines 1-7, Figure 3, 305), which would mean that the system inherently includes a marker generator. Cobbley discloses that a computer or the broadcast receiver (Figure 1, 110, Figure 5) generates custom tag information (Column 4, lines 39-45), by utilizing a speech recognition process (Column 4, lines 39-45, Column 8, lines 16-25), which reads on voice recognition software, coupled to the computer or the broadcast receiver and capture device (Figure 1, 110, 115), tag storage that stores the custom tag information (Figure 1, 125), keyboard to enter information (Column 15, lines 1-10), a cursor control device or an alphanumeric input device. It would have been obvious for the input device to be a remote control as a remote control can activate the cursor. The receiver can generate the necessary tags based on broadcast information such as title or subject matter keywords (Column 4, lines 3-6, 39-45), which can include inputting information and commands via an input device (Column 14, lines 23-45). It would have been obvious for the use of input device to generate tag information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include a marker generator (Figure 3, 305), a computer that generates custom tag information (Column 4, lines 30-45) using a voice recognition software, coupled to the computer (Column 8, lines 16-25), tag storage to store the tag information (Figure 1, 125, 128, 130), a keyboard and a remote control to generate custom tag information (Column 15, lines 1-10) as taught by Cobbley in order

to provide video and audio information of interest to users in an indexed manner (Column 1, lines 8-11, 31-36) as disclosed by Cobbley.

18. Claims 50, 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Block as applied to claim 19 above, and further in view of Ahmad.

Regarding Claims 50, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on marker generator generates markers by automatic detection of changes in audio levels within the primary video signal. Ahmad discloses marker generator generates markers by automatic detection of changes in audio levels within the primary video signal (Column 24, lines 52-67, Column 25, lines 1-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to marker generator generates markers by automatic detection of changes in audio levels within the primary video signal (Column 24, lines 52-67, Column 25, lines 1-40) as taught by Ahmad in order to find different ways categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

Regarding Claim 53, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4,

paragraph 0064). Freeman and Block are silent on marker generator generates markers by automatic detection of changes in color within the primary video signal. Abecassis and Kwoh are silent on markers inserted to indicate the division between the video segments and tags inserted to indicate content by automatic detection of changes in color within the video stream. Ahmad discloses that markers inserted to indicate the division between the video segments and tags inserted to indicate content by automatic detection of changes in color within the video stream (Column 16, lines 37-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to generate markers to indicate the division between the video segments and insert tags to indicate content by automatic detection of changes in color within the primary video signal (Column 16, lines 37-53) as taught by Ahmad in order to categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

Regarding Claims 54, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on marker generator generates markers by automatic detection of changes in audio levels or music within the primary video signal. Ahmad discloses marker generator generates markers by automatic detection of changes in audio levels within the primary video signal (Column 24, lines 52-67, Column 25, lines 1-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to

marker generator generates markers by automatic detection of changes in audio levels or music within the primary video signal (Column 25, lines 17-40) as taught by Ahmad in order to find different ways categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

19. Claims 52 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Block as applied to claim 42 above, and further in view of Gove.

Regarding Claim 52, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on the marker generator generates markers by automatic detection of changes in light levels within the primary video signal. Gove discloses that each video segment is defined by automatic detection of changes in light level within the video stream (Column 3, lines 1-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to insert markers to indicate the division between the video segments and insert tags to indicate content by automatic detection of changes in light levels within the video stream (Column 3, lines 1-16) as taught by Gove in order to analyze the scene changes in a video signal (Column 1, lines 65-68) as disclosed by Gove.

Regarding Claim 55, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on markers by automatic detection of changes in scenery within the primary video signal. Gove discloses that each video segment is defined by automatic detection of changes in scenery (Column 3, lines 13-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to generate markers of the video segments is defined by automatic detection of changes in scenery (Column 3, lines 13-21) as taught by Gove in order to analyze the scene changes in a video signal (Column 1, lines 65-68) as disclosed by Gove.

20. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view Block as applied to claim 42 above, and further in view of Elenbaas.

Regarding Claim 29, Freeman and Block disclose all the limitations of Claim 19. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on generating markers by automatic detection of changes in flesh tone. Elenbaas discloses detecting changes in flesh tone for image analyze of important scenes or story segments (Page 4, paragraph 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to detecting changes in flesh tone for

image analyze of important scenes or story segments (Page 4, paragraph 0028) as taught by Elenbaas in order to improve search and retrieve techniques for interest in television program (Page 1, paragraph 0008) as disclosed by Elenbaas.

21. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view Block as applied to claim 42 above, and further in view of Marbury.

Regarding Claim 57, Freeman and Block disclose all the limitations of Claims 1, 19, and 19 respectively. Freeman discloses a marker generator a marker generator generating markers that designate divisions between video segments (Page 3, paragraphs 0050, 0051, Page 4, paragraph 0064). Freeman and Block are silent on generating markers by applying automatically by use of voice recognition techniques. Maybury discloses encoding markers within a video stream (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) which indicates a division between a plurality of segments (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) by using voice recognition (Column 10, lines 33-40). Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include generate markers (Column 9, lines 42-67, Column 10, lines 1-21, 34-48) by using voice recognition (Column 10, lines 33-40) as taught by Maybury in order to provide a more efficient tool of allowing a user to catalog and search multimedia information which is more accurate (Column 1, lines 54-67) as disclosed by Maybury.

22. Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis in view of Kwoh as applied to claims 19 and 1 above, and further in view of Elenbaas and Ahmad.

Regarding Claims 67 and 68, Abecassis and Kwoh disclose all the limitations of Claims 19 and 1 respectively. Abecassis and Kwoh are silent on encoding markers detecting changes in flesh tone and detecting changes in audio including music within the video stream. Elenbaas discloses detecting changes in flesh tone for image analyze of important scenes or story segments (Page 4, paragraph 0028). Ahmad discloses detecting changes in audio levels including music (Column 25, lines 17-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode markers by detecting changes in flesh tone (Page 4, paragraph 0028) as taught by Elenbaas in order to improve search and retrieve techniques for interest in television program (Page 1, paragraph 0008) as disclosed by Elenbaas. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to encode markers by detecting changes in audio levels including music (Column 5, lines 17-25) as taught by Ahmad in order to categorize and organize segments of information (Column 1, lines 39-62) as disclosed by Ahmad.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farzana E. Hossain whose telephone number is 571-272-5943. The examiner can normally be reached on Monday to Friday 7:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600